# THE HEALING ARTS

# RADIATION PROTECTION COMMISSION

# ONTARIO MINISTRY OF HEALTH

# NINTH ANNUAL REPORT

# TO THE MINISTER OF HEALTH

# 1989 - 1990

91-05833/

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## THE COMMISSION'S MISSION STATEMENT

The Commission's mission is to promote patient safety in the use of radiation within the healing arts.

## I. INTRODUCTION

This is the ninth annual report of the Healing Arts Radiation Protection Commission to the Minister of Health, as required by Section 16(2) of the Healing Arts Radiation Protection (H.A.R.P.) Act, 1980.

The period covered by this report, April, 1989 to March, 1990, has been both interesting and challenging for the Commission. While continuing to monitor radiation safety in order to protect the citizens of Ontario, the Commission also began to take on a more pro-active role. This new role comes from an extensive review of the Commission's duties and responsibilities.

Until recently, most of the Commission's activities have focused on the development of the Regulations to support the Healing Arts Radiation Protection (H.A.R.P.) Act (proclaimed in 1980). Following the Regulations (established in 1985), Guidelines were developed and published in 1987. From 1987 to 1988 the Guidelines and Regulations were reviewed, amended and updated. Thus, except for regular reviews and updates a good deal of the Commission's regulatory work is complete. Therefore, 1989 to 1990 became somewhat of a transition period, a time for the Commission to look back on what was accomplished and look forward to see what still must be done.

With the above in mind, the Commission developed a three year strategic plan. An outline of the plan is contained within this report along with the Commission's other major activities for 1989 to 1990.

The Commission is confident that with the assistance and advice of its excellent advisory committee members, it will be able to complete its transformation to a more pro-active agency, and continue its commitment to radiation safety and the protection of all Ontario residents.

The transformation and revitalization of the Commission is especially evident in the membership. While it is difficult to see committed and experienced advisory committee members retire, it is exciting to welcome new members. The Commission welcomed 13 new advisory committee members during 1989-1990. We feel confident that they will contribute new vitality, ideas and initiative to the Commission in their roles as advisors.

We expect that 1990-1991 will bring even more challenges as the Commission embarks on this new phase.

## THE COMMISSION'S OPERATIONAL PHILOSOPHY

The Commission has adopted the following operational philosophy:

The Commission seeks to create a co-operative environment that permits positive changes within the health care system for the benefit of the patient.

## II. DUTIES OF THE COMMISSION

The Commission was established to:

a) advise the Minister on all matters relating to the health and safety of patients in respect of irradiation by x-rays;

b) oversee the continuing development of an X-ray Safety Code;

c) review the contents of courses in the operation of x-ray machines and x-ray equipment and approve the courses it considers satisfactory;

d) examine, study and report to the Minister on such matters, including health screening programs involving the use of x-rays, as the Minister may refer to the Commission for this purpose; and

e) perform such other duties as are assigned to it by or under this or any other Act.

## III. METHOD OF OPERATION

The Commission holds an average of one meeting each month and conducts its business by consensus. When needed, additional formal or informal meetings are held by the Commission, the chairpersons and members of the six advisory committees.

The Commission also routinely receives briefs from special interest groups and individuals; responds to correspondence and general enquiries, or refers these matters to the appropriate Advisory Committee(s); schedules and receives reports from Advisory Committees on issues referred to them; and submits reports and/or recommendations to the Minister of Health.

In order to assist the Commission with safety in relation to irradiation from x-rays, Advisory Committees were established in six broad areas relating to health disciplines. These include Chiropody (Podiatry), Chiropractic, Dentistry, Medical Radiology, Physics, and Radiological Technology. Subject to the approval of the Minister, the Commission may establish additional Advisory Committees, as required, for assistance.

The governing bodies and associations for each discipline nominate members to their respective advisory committee. The Commission reviews the nominations and appoints committee members. Since the public is well represented by the lay members of the Commission, it is not necessary to appoint lay members to advisory committees, as committee tasks are highly specialized and technical in nature.

The Commission establishes each committee's quorum and other procedural methods where appropriate; it also determines the order of priorities, tasks and deadlines.

Once again, for 1989-1990, each Commissioner took special responsibility for an advisory committee and attended that committee's meetings from time to time.

The Commission welcomes comments and suggestions on its programs and activities. Individuals or special-interest groups, wishing to make a presentation to the Commission on a topic or issue related to x-rays, may write to:

**HEALING ARTS RADIATION PROTECTION COMMISSION**
Project Co-ordinator
7 Overlea Boulevard, 6th Floor
Toronto, Ontario
M4H 1A8

## IV. SUMMARY OF ACTIVITIES DURING 1989 - 1990

### 1. Strategic Plan

Since its inception, the Commission has focused on the development of Regulations and Guidelines to support the H.A.R.P. Act. The past two years have been spent in part reviewing, amending and evaluating the Regulations and Guidelines.

With most of the regulatory work nov complete, the Commission found that many of its activities this past year centered on planning and organizing for the future of x-ray safety in Ontario. The Commission will continue to address radiation safety concerns as they are presented and will continue to take a pro-active role when appropriate.

With input and advice from all six of the advisory committees, the Commission has developed a three year strategic plan. The goals and objectives of the H.A.R.P. Commission for the next three years will be as follows:

**GOAL:** MONITOR MAXIMUM RADIATION PROTECTION IN MAMMOGRAPHY.

**OBJECTIVES:** Assess the H.A.R.P. Commission's role in the Ontario Breast Screening Program.

Request information on the quality assurance aspects of the Breast Screening Program.

Develop a comprehensive approach to radiation protection in mammography.

**GOAL:** IMPROVE RADIATION PROTECTION BY DEVELOPING IMAGE QUALITY STANDARDS.

**OBJECTIVE:** Study objective methods for developing and implementing image quality standards.

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**GOAL:** MONITOR MAXIMUM RADIATION PROTECTION AND QUALITY ASSURANCE FOR RADIATION THERAPY.

**OBJECTIVES:** Identify the need for possible regulation in radiation therapy.

Should the need be identified, establish an Advisory Committee for radiation therapy.

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**GOAL:** DETERMINE THE ROLE OF THE H.A.R.P. COMMISSION IN NUCLEAR MEDICINE.

**OBJECTIVE:** Identify any radiation protection safety concerns that may exist in nuclear medicine.

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**GOAL:** EXAMINE THE RELATIONSHIP BETWEEN RADIATION PROTECTION AND PROFESSIONAL ISSUES.

**OBJECTIVES:** Investigate the accreditation process as a strategy for improving radiation safety.

**GOAL:** DEVELOP A PUBLIC RELATIONS PLAN.

**OBJECTIVES:** Along with Advisory Committees, determine the need for a public relations plan directed at the general public.

Along with Advisory Committees, determine the need for a public relations plan directed at the relevant professions.

Raise H.A.R.P.'s profile within the Ministry of Health.

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**GOAL:** UPDATE EXISTING H.A.R.P. LEGISLATION, REGULATIONS AND GUIDELINES.

**OBJECTIVES:** Continue to review existing legislation, regulations and guidelines to determine when and where change and updating is necessary.

Develop regulations and guidelines to cover new technology as it emerges.

Continue the development of guidelines for pediatric entrance exposures.

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**GOAL:** REVIEW THE STRUCTURE OF THE H.A.R.P. COMMISSION AND ADVISORY COMMITTEE SYSTEM TO IMPROVE FUNCTIONING AND DECISION MAKING PROCESS.

**OBJECTIVES:** Analyze current structure.

Revitalize membership via the application of participation limits.

Develop a plan that will permit Comissioners / Committees to work more efficiently.

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An implementation or action plan, will be drawn up in the next fiscal year so that all goals and objectives can be met within the three year time frame.

2. Radiation Therapy

The Commission established a Radiation Therapy Work Group to study H.A.R.P.'s role in this area. The work group was comprised of experts from the specialties of oncology, medical physics and radiology Technology, with representation from the Board of Radiological Technicians, the Ontario Cancer and Treatment Research Foundation, the Ontario Cancer Institute and the Ontario Association of Medical Radiation Technologists. A report, along with several recommendations was the final product of this work group. The Commission is currently reviewing the report and will develop an action plan for radiation therapy in the new fiscal year.

3. Protective Devices Shielding Chart

The Commission recommends that the patient receive the lowest amount of radiation possible, consistent with a good radiological image. This recommendation is consistent with the internationally observed ALARA principle (As Low As Reasonably Achievable). One method of reducing the dose to the patient is to encourage a more effective use of protective shielding. The Radiology Technology Advisory Committee, with input and advice from the Medical Radiology and Physics Advisory Committees has developed a protective devices chart which will recommend when shielding is appropriate. The Commission plans to include this chart in the H.A.R.P. Guidelines. It is hoped that by usi chart, protective devices will be used more frequently and effectively, decreasing the amount of absorbed radiation a patient receives.

4. Ontario Breast Screening Program

Part of the Commission's duties include examining health screening programs involving the use of x-rays. Over the past two years, the Commission has enjoyed an open and co-operative relationship with those involved in the development of Ontario's Breast Screening Program. We have received copies of proposals and reports since the program's inception and have been encouraged to submit our comments, concerns and suggestions.

During the time period covered by this report, members of the Commission and its representatives have met with senior staff members of the Breast Screening Program, the Ontario Cancer Treatment and Research Foundation and the Women's Health Bureau to discuss the program in detail. Topics such as quality assurance, image quality standards, staff training and amendments to the H.A.R.P. Act have been discussed. These meetings have helped to assure the Commission that radiation safety and quality assurance will be a top priority within the Breast Screening program.

## 5. Commission Liaison Work

Over the past year, the Commission has continued to meet with other health care and related organizations. These meetings have helped to develop a better understanding of radiation safety and the work of the Commission. Specifically, the Commission has met with representatives of:

- The Task Force on Utilization of Medical Services
- The Ontario Dental Nurses and Dental Assistants Association
- The Ontario Cancer Treatment and Research Foundation
- The Ontario Association of Medical Radiation Technologists
- The Ministry of Education, Private Vocational Schools Office
- The Ministry of Health, Alternate Funding Unit
- The Ministry of Health, Women's Health Bureau

## V. MEMBERSHIP OF THE COMMISSION

The Commission, its composition, responsibilities and powers were established under the authority of Section 15 of the Healing Arts Radiation Protection Act. The Commission's work represents an active and vigorous effort to serve the public interest in the area of radiation protection and safety.

Members are appointed to the Commission by the Lieutenant Governor's Order in Council for a term up to, but not exceeding, six consecutive years. In order to ensure that the Commission functions independently of the providers of x-ray services and of the government, membership is restricted to lay persons who are not in the public service of the Province and who are not and never have been, members of any governing body or registered health discipline.

The five member Commission is supported by six Advisory Committees.

### Commission Members:

| | |
|---|---|
| Gerard Charette (Chairperson) | Windsor |
| Sandra Mark (Vice Chairperson) | Ottawa |
| Nigel Baillie | Toronto |
| Shirley Gauthier | Dryden |
| Aaron Glassman | Toronto |

## VI. MEMBERSHIP AND MANDATE OF THE ADVISORY COMMITTEES

The six Advisory Committees were established under Section 17 of the H.A.R.P. Act and represent each of the following disciplines:

1. Chiropody (Podiatry)
2. Chiropractic
3. Dentistry
4. Medical Radiology
5. Physics
6. Radiological Technology

The Committees assist and advise the Commission on:

- educational standards in x-ray safety;
- certification of all operators;
- quality assurance programs required for each class of facility;
- maintenance of appropriate standards for facilities, equipment and operators;
- professional and technological matters related to x-ray safety;
- updates and additions to H.A.R.P. Regulations and Guidelines;
- other matters referred to them by the Commission.

### Advisory Committee Members

With the exception of the Physics Advisory Committee, membership on each advisory committee consists of at least one representative from both the professional governing body and the voluntary association concerned. In addition, a physicist who has knowledge in matters of diagnostic radiology and is nominated by the Canadian College of Physicists in Medicine, serves on each Committee. These five medical physicists comprise the sixth H.A.R.P. advisory committee.

The following members served or were appointed by the Commission, during the period covered by this report:

## Chiropractic Advisory Committee

| | |
|---|---|
| **Dr. Robert Wingfield (Chairperson) | Burlington |
| *Dr. Leonard Hardman | Unionville |
| *Dr. Donald Henderson | Islington |
| **Dr. Robert Thurlow | Hamilton |
| Dr. Brian Wilson (Physicist) | Hamilton |

## Dentistry Advisory Committee

| | |
|---|---|
| *Dr. Paula Sikorski (Chairperson) | Toronto |
| **Dr. George Stirling (Chairperson) | Toronto |
| *Dr. Roger Ellis | Toronto |
| *Ms. Mary Lou Fischer | London |
| Dr. Michael Pharoah | Toronto |
| **Dr. Kenneth Pownall | Toronto |
| Dr. John Rowlands (Physicist) | Toronto |
| *Ms. Shirley Silverman | Toronto |

## Medical Radiology Advisory Committee

| | |
|---|---|
| **Dr. David Hynes (Chairperson) | Toronto |
| **Dr. Peter Cockshott | Hamilton |
| **Dr. Montague Cohen (Physicist) | Montreal |
| *Dr. Ian Cunningham (Physicist) | London |
| *Dr. Gerald Gill | Hamilton |
| *Dr. Alastair Scarth | Barrie |
| Dr. Ted Lansdown | Toronto |
| **Dr. Philip Loren | Toronto |
| Dr. William Mills | Ottawa |
| Dr. Cyril Rotenberg | Toronto |

## Physics Advisory Committee

| | |
|---|---|
| Dr. Martin Yaffe (Chairperson) | Toronto |
| **Dr. Montague Cohen (Chairperson) | Montreal |
| *Dr. Ian Cunningham | London |
| **Dr. Aaron Fenster | Toronto |
| *Dr. Ting-Yim Lee | London |
| Dr. John Rowlands | Toronto |
| Dr. Brian Wilson | Hamilton |

## Chiropody (Podiatry) Advisory Committee

| | |
|---|---|
| Dr. David Weston (Chairperson) | Kitchener |
| **Dr. Aaron Fenster (Physicist) | London |
| **Dr. Robert Goldberg | Willowdale |
| *Dr. Ting-Yim Lee (Physicist) | London |
| *Dr. Paul Lezner | Willowdale |

## Radiological Technology Advisory Committee

| | |
|---|---|
| **Mr. Desmond Barnes (Chairperson) | Hamilton |
| Dr. Judith Ash (Chairperson) | Toronto |
| *Mr. John Gillis | Brantford |
| *Mr. Alex McKinnon | Kingston |
| Mr. Rick Roberts | Guelph |
| **Mr. Terry West | Toronto |
| Dr. Martin Yaffe (Physicist) | Toronto |

* Denotes new member

** Denotes retired member

## VII. ACKNOWLEDGMENTS

The Commission wishes to acknovledge the excellent efforts of its Advisory Committees in assisting the work of the Commission.

In addition, the Commission would like to thank the following Ministry of Health staff for their efforts, advice and assistance.

Mr. Joseph Ritchie
Chief
X-ray Inspection Service

Ms. Susan Elworthy
Project Co-ordinator
X-ray Inspection Service

Secretarial support was provided by:
Mrs. Margo Kipis
Service Administrative Secretary
X-ray Inspection Service

The Commission also wishes to acknovledge the contributions of Dr. Walter Lumsden, Medical Advisor to the Commission.